

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005352**Date Inspected:** 03-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, Oregon**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Hinge K Pipe Beams**Summary of Items Observed:**

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Oregon Iron Works, Inc. (OIW) jobsite in Clackamas, Oregon for the purpose of observing fabrication of the Hinge K Pipe Beams.

OIW Fabrication Shop-Bay 1:

QA Inspector Brannon randomly observed OIW personnel in Bay 1 at the CNC mill for facing hinge k pipe beam post tension cap plate (A825M) MK#a109 in preparation for welding.

OIW Fabrication Shop-Bay 2 (Post Heat Straightening):

QA Inspector Brannon randomly observed OIW qualified welder Mr. Rick Hinkle ID#H49 on k pipe beam fuse section A124-3 (HPS 485 W) into acceptable tolerances. Mr. Hinkle was observed using a temperature indicator of 1050°F to insure that the heat straightening process did not exceed 1100 °F. Cause for heat straightening due to the rolling process and welding distortion. Heat straightening is performed by flame straightening using a portable torch mounted on a traveler. Heat straightening randomly observed by QA Inspector Brannon appeared to comply with OIW's Upset Shortening Procedure (Heat Straightening) Procedure SP-006 revision 2. QA Inspector Brannon observed OIW QC CWI Inspector's Mr. Mike Gregson, Mr. Rob Walters and Mr. Pete Hail and Mr. Jose Salazar randomly monitoring the heat straightening process. Heat straightening completed on this date with 50 passes.

QA Inspector Brannon randomly observed OIW qualified welder Mr. Rick Hinkle ID#H49 on k pipe beam fuse section A124-8 (HPS 485 W) into acceptable tolerances. Mr. Hinkle was observed using a temperature indicator of 1050°F to insure that the heat straightening process did not exceed 1100 °F. Cause for heat straightening due to

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the rolling process and welding distortion. Heat straightening is performed by flame straightening using a portable torch mounted on a traveler. Heat straightening randomly observed by QA Inspector Brannon appeared to comply with OIW's Upset Shortening Procedure (Heat Straightening) Procedure SP-006 revision 2. QA Inspector Brannon observed OIW QC CWI Inspector's Mr. Mike Gregson, Mr. Rob Walters, Mr. Pete Hail and Mr. Jose Salazar randomly monitoring the heat straightening process.

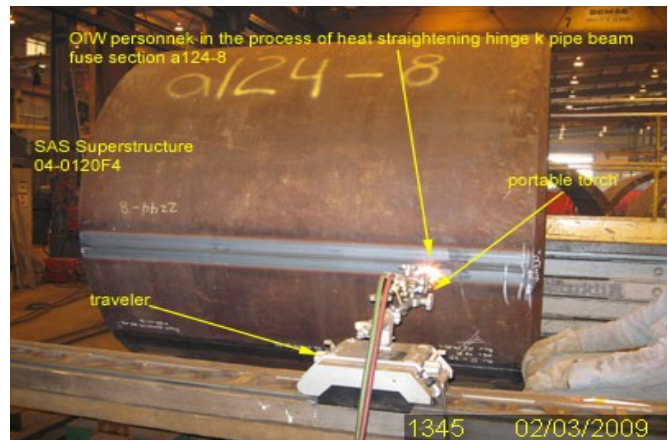
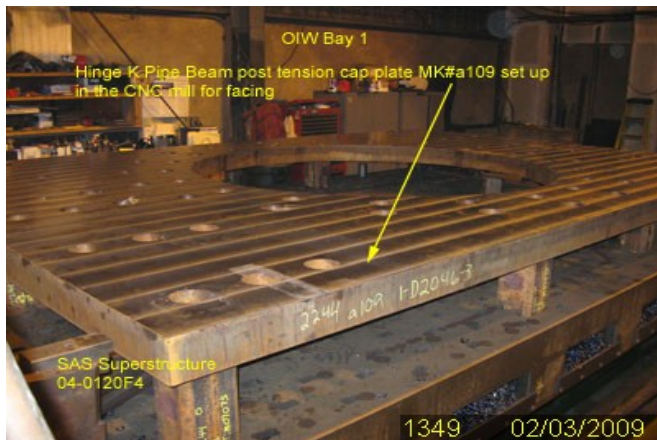
OIW Fabrication Shop-Bay 3:

QA Inspector Brannon randomly observed OIW qualified welder Mr. Craig Jacobson ID#J6 welding a joining ring stiffener plate MK#b112 (HPS 485 W) to hinge K pipe beam A111-3 (A508 Gr. 4N Class 2). The complete joint penetration (CJP) weld is identified as weld joint #W2-6. Mr. Jacobson was observed welding in the 1G (flat) position utilizing submerged arc welding (SAW) process with a 2.4mm diameter electrode, filler metal brand Lincoln Electric LA85 class F9A4-Eni5-G-H2. QA Inspector Brannon observed the OIW QC CWI Inspector's Mr. Mike Gregson, Mr. Rob Walters and Mr. Jose Salazar verifying that the pre-heat and welding parameters were in accordance with the Welding Procedure Specification (WPS). Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS 4016 revision number 0. Welding completed on this date.

Material, Equipment, and Labor Tracking:

QA Inspector Brannon performed a verification of personnel at OIW. QA Inspector Brannon observed 1 Supervisor, 4 Quality Control and 3 production personnel on this date.

The following digital photograph below illustrates observation of the activities being performed.



Summary of Conversations:

No relevant conversations to report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

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Inspected By: Brannon, Sherri

Quality Assurance Inspector

Reviewed By: Adame, Joe

QA Reviewer